

IM5242 Hanwell Synergy

Remote Management Tool





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Contents

1	F	Prerequisites	4
2	I	Installation	4
3	(Overview	5
4	ι	Using The Remote Management Tool	ô
	4.1	Starting	ô
	4.2	2 Selecting Sensors	ô
5	F	Performing Tasks	7
	5.1	Synchronising Sensors	7
	5.2	Calibrating Sensors	7
	5.3	Merging Sensors	8
	5.4	SR2 Configuration	В
	5	5.4.1 SR2 Clock & Erasing Memory	9
	5.5	SR2 Network Configuration	0
	5	5.5.1 Configuring the Smart Receiver on a Network1	D
	5.6	Wood Watch Configuration 1	1
	5.7	Current Clamp Configuration1	2
	5.8	AE Device Configuration	2



Document History

Document Number: IM5242

lssue No.	Issue Date	Changes	Ву
1	15/04/2013	First Issue	IB
2	23/04/2015	SR2/Wiznet Board Config Uility	CRB



1 Prerequisites

'Synergy Remote Management Tool' must be installed on a Microsoft Windows PC or Server; minimum operating system requirement is Windows 7, either x86 or x64; or Windows Server 2008, either x86 or x64.

The host machine must have a DVD player and at least one free USB port.

There must be http, (port 80), access from the host machine to the Synergy server.

2 Installation

The Remote Management Tool is intended to be installed on machines remote to the Synergy Server. As many instances as required may be installed without further licensing implications.

The Remote Management Tool is installed from the main Synergy Installer dialog. Run Install.exe from the DVD and select 'Install Synergy Remote Management Tools', deselect 'Install Synergy Server Components'; select next and follow the on screen instructions.



3 Overview

The Synergy Remote Management Tool is intended primarily for system supervisors and expert users.

It provides a http link to data in the Synergy database, allowing hardware devices, at remote locations, to be configured and associated with an existing Synergy system.

Once a device has been added to Synergy via the Web Interface the Remote Management Tool can be used to perform configuration tasks on that device such as Synchronising, Calibrating and Merging.

This tool currently provides the capability to perform the following tasks:

- Synchronising USB Devices
- Calibrating USB Devices
- Merging USB Devices
- SR2 Configuration
- SR2 Network Configuration
- Wood Watch Configuration
- AE Device Configuration
- Current Clamp Configuration



4 Using The Remote Management Tool

4.1 Starting

The 'Remote Management Tool' is accessed via the start menu.

When it is started it will prompt you to enter a username and password and the URL of the synergy system that you wish to communicate with; the URL will be in the form *http://<hostname>/Synergy/*, replace *<hostname>* with the hostname or IP address used to reach your Synergy server.

Please enter y	our Synergy Credentials:
Usemame A	ıdmin User
Password .	****
Please enter th	ne URL for Synergy: 192-168-0-90/Synergy/
oric hispor	ist roots so of rogy

Figure 1

Ensure that the fields are correct and click ok to continue.

4.2 Selecting Sensors

SYNERGY Rem	ote Management T	ool		in the set	a contra			
FILE View	FILE View Tools Help							
G - O ts								
I Physical Grid:	Unknown						0	Selection 🖏
ID	Name	Status	Туре	Latest Readings	Serial	Calibration Due	<u>^</u>	
-1	Manual	Ø	Manual Input sen	34 3 2 1	fred	11/04/2014 00:0		All Sensors
-1	John	0	Manual Input sen	1000	0	11/04/2014 00:0		Eng test Sensors
2	Server Rack	0	Themistor	25.4	0509-00461	07/09/2012 00:0	E	
3	Network Rack	0	Themistor	21.8	0509-00462	07/09/2012 00:0		Temperature Sensors
4	Archives +Flood	Ø	Themistor/RH	20.5 39.2	1109-00021	07/09/2012 00:0		Eng Sensor Test
5	Canteen Left Frid	Ø	Themistor	4.5	0509-00458	07/09/2012 00:0		Ight Sensors IIII Ight Sensors
6	Canteen Right Fri	0	Themistor	1	0509-00459	07/09/2012 00:0		
7	Office Fridge	0	Thermistor	4.8	0509-00457	07/09/2012 00:0		
8	Solder Paste Fridge	8	Themistor	4.7	0509-00460	07/09/2012 00:0		
9	lan's Office	Ø	Thermistor/RH	23.5 44.9	0509-00061	07/09/2012 00:0		
10	Derek's Office	0	Themistor/RH	22 50.2	0509-00060	07/09/2012 00:0		
11	Accounts	Ø	Themistor/RH	25.1 42.3	0509-00067	07/09/2012 00:0		
12	Sales Office	Ø	Themistor/RH	23.4 46	0509-00064	07/09/2012 00:0		
13	Sales Reception	0	Themistor/RH	24.2 44.3	0509-00066	07/09/2012 00:0		
14	Mail Room	0	Themistor/RH	23.8 45.2	0509-00058	07/09/2012 00:0		
15	Sales Meeting R	Ø	Themistor/RH	22.9 48.4	0509-00063	07/09/2012 00:0	-	
	1		1	1	1	1		.:

Figure 2

Once the application has loaded, sensors can be browsed by navigating Sites and Groups; to switch the view mode between Sites and Groups either select the corresponding View menu option or click the appropriate tool bar button.

Sites and groups can be navigated by; using the tree view to the right of the screen, using the 'Next Grid' and 'Last Grid' options in the View menu or using the Back and Forward tool buttons in the top left of the screen as seen.

Sensors are selected by simply clicking on them.



5 Performing Tasks

5.1 Synchronising Sensors

The Synchronise process will take data from a connected USB device and update the Serial Number and Calibration details to Synergy, at the same time as setting the physical transmit ID of the device.

To Synchronise a sensor first ensure that it is plugged in using a USB cable and then select the correct sensor using the management tool. Once the sensor is selected right click on it and select 'Sync Selected Sensor' from the menu that appears and you should see a window as shown in *Figure 3*.

The sensor selected must match the physical device or the program will not complete

Name Production SMT ID Number 20 Transmit interval 30 Sensor shows alarms Image: Seconds Alarm flash rate None Alarm flash rate None Calibration mode Image: Seconds Tx in Calibrate mode Image: Seconds Serial No. 0313-00044 Synchronise	n Synergy Synchronise USB Sensor V1.1						
ID Number 20 Transmit interval 30 ▼ Seconds Sensor shows alarms ▼ Alarm flash rate None ▼ Calibration mode Tx in Calibrate mode Enable logging ▼ Serial No. 0313-00044 Synchronise	Name	Production SMT					
Transmit interval 30 Seconds Sensor shows alarms Image: Constraint of the second secon	ID Number	20					
Sensor shows alarms Image: Calibration mode Calibration mode Image: Calibrate mode Tx in Calibrate mode Image: Calibrate mode Enable logging Image: Calibrate mode Serial No. 0313-00044	Transmit interval	30 💌 Seconds					
Alarm flash rate None Calibration mode Tx in Calibrate mode Enable logging Serial No. 0313-00044 Synchronise Close	Sensor shows alarm	s 🔽					
Calibration mode Tx in Calibrate mode Enable logging Serial No. 0313-00044 Synchronise Close	Alarm flash rate	None 💌					
Tx in Calibrate mode Enable logging IV Serial No. 0313-00044 Synchronise Close	Calibration mode						
Enable logging Serial No. 0313-00044 Synchronise Close	Tx in Calibrate mode						
Serial No. 0313-00044 Synchronise	Enable logging	v					
	Serial No. 03	13-00044 Synchronise					

Figure 3

When the Synchronise window has completed loading and all the fields are populated click the Synchronise button and follow the instructions given until it reports that the synchronise is complete. Once the complete close the window to finish and update the Synergy database.

5.2 Calibrating Sensors

The calibration process takes sensor calibration settings from the synergy database and loads them into a selected sensor.

To calibrate a sensor first ensure that it is plugged in using a USB cable and then select the correct sensor using the management tool. Once the sensor is selected right click on it and select 'Calibrate Selected Sensor' from the menu that appears and you should see a window as shown in *Figure 4*. The Sensor serial number and type must match, or the program will not complete.

1 Synergy USB Sensor Calibration V1.1					
Name	Name Production Test				
ID Number	21				
Serial No.	0313-00044				
	Send Calibration				
1					
		///			

Figure 4

When the Calibration window has completed loading and all the fields are populated click the Send Calibration button and follow the instructions given until it reports that the calibration is complete.



5.3 Merging Sensors

The Merge process allows logged data to be downloaded from a connected sensor and added to Synergy.

To merge a sensors' data, first ensure that it is plugged in using a USB cable and then select the correct sensor using the management tool. Once the sensor is selected right click on it and select 'Merge Selected Sensor' from the menu that appears and you should see a window as shown in *Figure 5*.

]
Setup		
Identification		
Serial No.	0313-00044	
Records in logger:		
Interval (hh:mm:ss)	00:15:00	<u>D</u> ownload
Start Time:	08:30:00 10/Apr/2013	📑 <u>S</u> ave Data
Memory fills	00:30:00 17/Nov/2014	? <u>H</u> elp
		<u> </u>

Figure 5

When the merge window has completed loading click the download button and follow the instructions given until it reports that the download is complete. Once the download is complete close the window to finish and update the Synergy database.

5.4 SR2 Configuration

To configure an SR2 follow the instructions below. For additional information, see Synergy User Manual document number IM5208, section 4.2.

Select a sensor using the management tool that uses the desired SR2. Once the sensor is selected right click on it and select 'Setup SR2' from the menu that appears and you should see a window as shown in *Figure 6.*

MNetPC v2.1						
Communications	Standard Commands					
IP Address (eg 123.456.3.0:3010)	Set Clock					
	Get Clock					
Test Functions	Erase					
MSID Channel Value Relay	Download					
1 🛨 1 🗢 100 🗢 Active	Test Mode ON					
Read MS12 Sensor Load Relay Card	Test Mode OFF					
Load 8Bit Analogue Card Load 12Bit Analogue Card						
Tranceiver Test Functions						
Radio ID: 0 🔹 0 🜩 0 🜩 0 🜩						
Custom12 Custom8 Test Radio Signal						
Repeat Every 0 🗲 *5 Secs	<u><u> </u></u>					

Figure 6

This window allows the system administrator to initialise and debug SR2 operation.



5.4.1 SR2 Clock & Erasing Memory

The Smart Receiver has an on-board clock used for time/date stamping data. In Synergy most date time values, including data values are stored as Greenwich Mean Time, (GMT); setting the clock from one of the Management Tools will automatically set the SR2 clock to GMT.

Note: RadioLog uses local time to store data; which is why an SR2 cannot be shared between a Synergy and RadioLog installation.

Ideally, you should set the clock so that the time is in synch with Synergy Server time: if it is out of synch you may get false Elapsed Time Alarms.

Use the **IP Address** drop down, (see **Error! Reference source not found.** above), to select the required SR2 by IP address; then click **Set Clock** to set the SR2 clock.

The SR2 time can be checked by clicking **Get Clock**, to display the SR2's current date time in the status bar; note the SR2 time will be displayed as Greenwich Mean Time, (GMT).

On Initial installation, an SR2 should have its memory erased. Click Erase to erase the selected SR2's memory.

Repeat the steps in this section, as required, for all SR2's in the **IP Address** drop down.



5.5 SR2 Network Configuration

To perform network configuration for SR2s Select 'SR2 Network Configuration' from the tools Menu and you should see a window similar to the one shown in Figure 7.

WIZ100SR/105SR/110SR Configuration Tool ver 3.0.2						
Version	Enable Serial Debug Mode					
Board list	Network Serial Option IP Configuration Method © Static C DHCP C PPPoE Local IP Port Subnet Gateway PPPoE ID Password					
	Server IP Port Operation Mode C Client C Server @ Mixed Use UDP mode Use DNS DNS Server IP Domain Name					
Direct IP Search	Search Setting Upload Ping Firewall					

Figure 7

This form is intended for system setup/debug only.

5.5.1 Configuring the Smart Receiver on a Network

The Hanwell Smart Receiver(s) must be configured before use. This is normally done on the network but in some instances it may be necessary to connect to the Smart Receiver(s) directly.

Before the Smart Receiver(s) can be configured, fixed IP addresses should be assigned to each unit by the network manager. You should also know the Subnet and Gateway addresses. The Smart Receiver should be connected to the network using a straight-through network lead (supplied). Use the following steps to assign the IP addresses to the Smart Receiver(s):

5.5.1.1 Step 1

Run the Synergy Management Tool, see Synergy Management Tool instruction manual (document number IM5210).

5.5.1.2 Step 2

Select Tools from the main toolbar and then click on SR2 Network Configuration. Click on Search to start searching the network for connected SR2's.

5.5.1.3 Step 3

The program will search for any SR's on the network; all SR's found will be displayed in the Board List. If there are no SR2's found you will need to get the IT department to check the network. The SR2's can be connected directly to a laptop using a crossover cable to confirm their operation.

5.5.1.4 Step 4

Click once on a unit in the **Board List** to select it.

Enter the **Network Configuration** details as specified by your network manager and or as found on the Synergy Pre-requisites document (document number GD5209). This consists of the following:

- Local IP
- Subnet
- Gateway
- Server IP (should be set to match the Local IP address)
- Port

The **Port** details can be found on the Synergy Pre-requisites document (document number GD5209), IMC recommend using the default **Port** 10992 for all **SR2's**.



5.5.1.5 Step 5

Enter additional **Configuration** details as follows:

Set the Network Mode to the option Server Mode.

Check the following options are **NOT** ticked:

- Enable Serial Debug Mode
- Enable DHCP Mode
- Use UDP Mode

5.5.1.6 Step 6

Click on the Serial Configuration tab and check it is as follows:

Smart Receiver Setting		
Speed	115200	
Parity	None	
Data Bit	8	
Stop Bit	1	
Flow Ctrl	CTS / RTS	

5.5.1.7 Step 7

To program the SR2 click on Setup.

Repeat steps 3 to 7 for any additional SR'2 on the network.

5.6 Wood Watch Configuration

To configure a Wood Watch device ensure that the device is plugged in using a USB cable then select 'Wood Watch Configuration' from the tools Menu and you should see a window similar to the one shown in Figure 8.

WoodWatch Configuration V1.0						
Device 0313-00044 is Connected						
Device 0313-00 Test functions Get Current ADC Values Get Accumulated Values High Channel Get Accumulated Values High Channel Start test logging	JU44 is Lonnected Calibration/ Setup High f threshold 20 Low f threshold 6 Sample frequency (kHz) 15 Sensor Tx ID 1 Transmit Interval (secs) 30 Log Interval (hh:mm:ss) 00:01:00 To USB Device From USB Device					

Figure 8

See the wood watch manual for detailed explanation.



5.7 Current Clamp Configuration

To configure a Current Clamp device ensure that the device is plugged in using a USB cable then select 'Current Clamp Configuration' from the tools Menu and you should see a window similar to the one shown in Figure 9.

Current Clamp Configuration V2.2						
Device 0313-00044 is Connected						
Sensor Type	Events					
Three phase C 2 w Sizela share	Transmit/log on Event					
0 3 x Single phase	Current Threshold 1	7				
Last battery change 04/Mar/2013	Concil Thicshold T					
Calibration/ Setup						
Amps Full Scale (Chan1) 278.74						
Amps Full Scale (Chan2) 588.45	Event Timeout (secs)	60 🔹				
Amps Full Scale (Chan3) 585.88	Operation Mode					
Sensor Tx ID 218 🚖	C Average					
Transmit Interval (mins)						
Log data 🔽	Instantaneous					
? Help Refresh	Program device	Close				

Figure 9

See the current clamp documentation manual for detailed explanation.

5.8 AE Device Configuration

See the AE device documentation for full explanation.